

# Pukekura Park-/-Kete Platform Ecologies

## Natural/Material

## Social/Historic/Cultural/Political

## Informational

### Input Forces/Energies/Influences/

#### Energy forces

- Sun (Photo-synthesis)
- Electricity (70% Hydro, rest is geothermal, gas, coal and oil-fired thermal stations, bio-mass plants and wind farms)
- Gravity (waterfall)
- Friction (foot traffic)

#### Hydrospheric inputs

- Rainfall (Path erosion, pollution to lake)
- Storm water run off
- Springs

#### Abiotic input

- Sand & gravel
- Concrete
- Minerals
- Hard metals (pollution)

#### Migrant Biotic population

- Human Visitors
- Birds
- Cats
- Seeds
- Insects

#### Social-organisational human influences

- City Council services decisions
- Surrounding urban development
- NZ Energy industry (Powerco)
- Festival (creative economy) culture
- Urban Leisure and sport culture
- Māori/Pasifika nature-culture
- Foot traffic (path erosion)
- Tourism
- City Pride
- Conservation (Historic buildings & Nature)
- City-pairing of New Plymouth & Kunming
- Business investment
- Social and community investment
- Botanical research

#### Organisations

- Friends of the Pukekura Park Association
- Puke Ariki
- New Plymouth Zoo
- Taranaki Educational Resource: Research, Analysis and Information Network (T.E.R.R.A.I.N.)
- Local Nature Appreciation Societies (e.g. Reptile Cactus, ..)
- SCANZ Residency

#### Finance/Sponsors

- City Council
- TSB Bank
- 60 Springs: Shell New Zealand
- Taranaki Electricity Trust
- Taranaki Arts Festival Trust (<http://www.womad.co.nz/>)

#### Kete Platform influences

- Taranaki Wiki (precedent local example)
- Katipo Ltd. (open-source business model)
- Wikipedia (dominant peer-based wiki)
- Creative Commons (intellectual property)

#### Media/Network culture influences

- Local newspapers and radio
- Crowdsourcing
- User-generated media
- Citizen Science
- Intellectual property issues (copyleft/right, creative commons, public domain)

#### Data/Software influences

- Computer Operating Systems (Windows vs OSX vs Linux)
- Digital media software (FLOSS vs Proprietary)
- Digital media file-formats (Open vs Proprietary)
- New Plymouth District Council GISBoost
- Environmental Monitoring and Action Project guidelines (<http://www.emap.rsnz.org>)

#### Information and text sources

- Puke Ariki Heritage text materials
- T.E.R.R.A.I.N.
- Taranaki Wiki (2006-2007 content)
- 60 Springs Moodle (ongoing)
- Nature appreciation societies (ongoing)
- Geographical Information System Data
- Geographical Positioning System Data
- Wikipedia texts and links

#### Media sources

- Professional and amateur photographers
- Professional and amateur audio-recorders
- Flickr Image platform
- Vimeo Video platform
- HiperGPS (Brett Staulbaum)
- Local news and media platforms
- Local festival platforms
- WikiCommons
- MySpace/Bebo/Facebook social networking sites

### Components in the Pukekura Park/-Kete Platform ecosystem

#### Biotic Population

- Birds
- Tui
- Kereru/New Zealand pigeons
- Morepork

#### Plants & vegetation

- Vegetables and Herbs
- Flowers (Orchids, Waterlillies)
- Tree Ferns (6 species)
- Shurbs (e.g. Camellia japonica, Rhododendrons)
- Ferns (44 species)
- Mosses (28 species)
- Trees (Native: 18 species + ) (e.g. Puriri/Vitex lucens, Sophora/Kowhai, Holm Oak/Quercus ilex, Golden macrocarpa)

#### Small mammals

- Hedgehogs
- Rotents

#### Humans

#### Habitats

- Lakes /Water in Ponds
- Brooks and streams
- Trees
- Ferns and bushes
- Grasslands
- Gullys
- Groves

#### Social-organisational meeting-places

- Front gate
- Entrances
- Band-stand
- Boating Pond
- Zoo
- Fernery & Display Houses
- Tea House
- Sports Ground
- Brooklands Bowl Music arena
- Kunming Park
- Path walks

Types of Info/Data/Media that is/could be online (<http://kete.pukekura.org.nz/>)

#### Engaging With Population of Park

- Notable Trees by Cory Smith
- Bird Watching by David Medway (bird spotting guide)
- Bird Listening (e.g. Tui .mp3)
- Photography by David Hughes

#### Engaging with Events/Activities of Park

- Calendar
- Proposing guided tours
- Event reports and stories
- Sport reports and stories
- Festival reports and stories
- Park experiences and stories

#### Friends of Pukekura Park

- Explore the Park (images)
- Highlights of the Park (images)
- History of the Park
- Ecology of the Park
- Birds of the Park

-Park workers: gardeners, engineers, tearoom cafe, zoo keepers, volunteers, musicians, event organisers, boat keepers, botanists, horticulturalists, caretakers, waste management, biomass management,  
-Local residents & enthusiasts, regional, national and international tourists

#### **Fish**

-Eels, Goldfish

#### **Micro-organisms**

-Bacteria, Pond plankton

#### **Amphibians**

-Frogs, Tadpoles

#### **Fungi**

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#### **Molucsses**

-Slugs, Snails

#### **Insects**

-Butterflies, Glowworms, Caterpillars  
Sandflies, Mosquitos, Huhu beetles

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#### **Hydrosphere features**

-Springs  
-Streams/Brooks  
-Pools and lakes

#### **Abiotic features**

-Stones  
-Gravel  
-Sand

-Fernery & Display Houses  
-Thoughts and Issues  
-Community Partnership: Park Archive Project  
-Volunteer activities  
-Magazines  
-Meeting Minutes

#### **60 Springs Education/Recording projects**

-Fish data  
-Frog data (.xls vs .ods vs .txt)  
-Duck data  
-Glowworm and insect data  
-Frog images (.jpg), movies (.mpg) and sound files (.wma vs .mp3 vs .ogg?)

#### **Archives**

-Puke Ariki Sound Archive (Guided tours?)  
-George Fuller Collection  
(A collection of research notes, images, published material and newspaper articles primarily gathered throughout George Fuller's career as Curator Pukekura Park, New Plymouth)  
- e.g. Illustration of a Morepork (.jpg)

#### **Map data**

G.I.S data  
Map images (e.g. Aerial image of Pukekura Park .jpg)

#### **Other data**

-Bob Burstall: Measurements of trees

#### **Sensors**

-Temperature  
-Water acidity  
-Humidity  
-Movement

## Output Materials/Energies/Organisms/Information

### Energy

- Heat Sink
- Light

### Biomass Materials

- Compost
- Biowaste (Human and animal)

### Other Materials

Human paper, plastics & litter waste

### Hydrosphere

- Spring water
- 'Grey' water
- Rainwater run-off/drainage

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### Finance/Sponsors

Environmentally-conscious association

### Events

- Education projects
- Sport events (cricket, rogaine)
- Social gatherings (e.g. Picnics)
- Guided tours
- Conference venue
- Weddings
- Music Festival
- Festival of the Lights
- WOMAD Festival
- Movie-making (The Last Samuri)
- SCANZ Residency

### Print publications

- Friends of the Pukekura Park Newsletter/Magazine
- Puke Ariki Publications (e.g. Pukekura Park and Brooklands: a guide to walks)
- Nature Magazines (e.g. New Zealand Geographic)
- New Plymouth District Council Publications

### Local media

- 93.2 MORE FM
- Taranaki Daily News
- The North Taranaki Midweek

### Online media/publishing

- Puke Ariki website
- SCANZ website
- New Plymouth District Council website
- T.E.R.R.A.I.N. website
- Matapihi Online Heritage platform
- Flickr Image platform
- MySpace/Bebo/Facebook Social-networking platforms

### Kete NZ Networking

- Other Kete Platforms in NZ

### Visualisations

- e.g. Migrant Biotic population movements

### Sensor data

- Pachube Community (Pachube)

